RUPTURE OF THE BICEPS BRACHII AT THE LOWER MUSCULO TENDINOUS JUNCTION

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GILCREEST, in 1934, analysed one hundred cases of rupture of the biceps brachii and reviewed the literature. Only two of these are recorded as being ruptures at the lower musculo tendinous junction, and one of the lower tendon itself. Three were described as rupture at the insertion, though Dobbie (1941) comments that these were probably instances of avulsion of the tendon from its radial attachment. He also added fifty cases to the literature, not one of which was a rupture at the lower musculo tendinous junction. More recently Meherin and Kilgore (1960) reviewed twenty-two patients, all of whom had avulsion of the tendon at its radial attachment.

It would seem, therefore, that rupture at the lower musculo tendinous junction is an extremely rare finding; for this reason the following case is recorded:—

CASE HISTORY.

On 11th August, 1961, the patient, J. H., aged 28 years, was laying concrete sewer pipes. These were 3 feet long, 2 feet 6 inches in diameter, and 1¼ inches thick, and weighed 6 cwts. approximately. A pipe was standing on end. A workmate inclined towards the patient, but slipped, so that the patient took the full weight on his flexed forearms.

He actually heard a sound 'like paper tearing,' and immediately felt pain in his left antecubital fossa, which very quickly became swollen. He noted that he was still able to bend the elbow, but only weakly.

He was taken to the Casualty Department of this hospital, where he was told that he had torn a muscle and was treated in a sling. During the next week the elbow and forearm became discoloured. He noted that he was still able to flex the elbow, though weakly, and when he did so he was able to see a lump travelling up the front of his arm and he 'felt as if something was crawling up the inside.' He also volunteered that this occurred on turning his hand to the left, i.e., on supination. The only other complaint was of some tingling and numbness on the dorsum of his hand.

He was referred to the Orthopædic Clinic on 8th September, 1961, where the condition was diagnosed and it was decided to attempt surgical repair.

At operation on 13th September, 1961, through an anterolateral incision, it was seen that the natural efforts at repair had resulted in gross thickening of the paratenon, giving rise to a considerably thickened gelatinous mass, such as is seen in old ruptures of the tendo achilles. This structure was divided by a long "Z" shaped incision, and at this stage the remnants of the tendon, fibrillated and wavy in appearance, were seen lying in the lower end of the mass. The whole structure, i.e., the tendon plus the thickened mass, was shortened and repaired with interrupted catgut sutures. Plaster-of-Paris back slab was applied with the elbow at a right angle. This was removed on 10th October, 1961, and activation begun.

By 31st October, 1961, extension was almost full. Active flexion was improving and there was definite contraction of the biceps. By 21st November, 1961, there was full recovery of elbow movement and of muscle power, and he was discharged.

Summary.

(1) A case of rupture of the tendon of the biceps brachii at the lower musculo tendinous junction is described.

(2) Full functional recovery was obtained, although operative repair was delayed for thirty-three days.

(3) Attention is drawn to the paucity of the literature on this particular injury.

Acknowledgment.

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References.

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REVIEW

CLINICAL CHEMISTRY IN PRACTICAL MEDICINE. By C. P. Stewart, D.Sc., Ph.D., and Sir Derrick Dunlop, B.A.(Oxon), M.D., F.R.C.P.(Edin.), F.R.C.P.(Lond.). Sixth Edition. (Pp. vii + 359. 27s. 6d.) Edinburgh and London: E. & S. Livingstone, 1962.

This is a simple, concise book written for the senior student, house physician, and practitioner to enable them appreciate the rationale of chemical pathology in its application to practical medicine. It does, in fact, go further, and provides an excellent bird's eye view of the scientific basis and understanding of clinical biochemistry.

Although this is primarily intended for those who have had limited experience in ordering and interpreting laboratory tests, this book gives a lucid review of the whole subject and could be read with benefit by most practitioners looking for a sound foundation on which to build a knowledge of the scientific side of medical practice. In this respect it could be particularly useful to the post-graduate who is about to embark on his studies for membership.

The clinical pathologist must pray that books of this type will be widely read by hospital resident staff and that they may some day reduce the volume of uninspired long-shot and blunderbuss investigations which swell patients' charts to encylcopædic proportions.

In short, this is a small, well-written book, in which physicians of all grades would find something of interest. J. L.